PROJECT NUMBER: 2108
PROJECT TITLE: New Product Technology
PROJECT LEADER: W. T. Callaham
PERIOD COVERED: June, 1989

I. SAUNA

A. **Objective**: Develop products utilizing a modified plastic fluted filter.

B. **Status**: An off-line prototype device for blocking the flutes of the plastic filter was fabricated and samples were made. This device melts a groove around the filter and then builds up the melted plastic into the flutes. Conventional Sauna cigarettes (no charcoal section) were made using these filters and were smoked at ISO conditions. The deliveries were the same as for the model with flutes blocked via hot melt bead.

One thousand of the most current Sauna cigarettes (hot melt bead blockage) were delivered to EEMA for testing.

C. **Plans**: Sauna cigarettes will be made again via hot-wire melting and hot melt bead to confirm the desired effect. If successful again, PM Engineering will be requested to provide scale-up of this approach.

II. HUMIDOR

A. **Objective**: Develop a moisture release device for use in a cigarette pack which maintains pack OV at the desired level.

B. **Status**: The final results of the consumer test in U.A.E. have not been received, yet.

In the meantime, at the request of EEMA Marketing, a shipping/ageing study of humidor cigarettes in the Middle East is being designed.

C. **Plans**: Conduct the Middle East shipping/ageing study.

III. AMBROSIA

A. **Objective**: Evaluate the use of flavor-release compounds in cigarette paper and sideseam adhesives.

B. **Status**: Visually acceptable Trim-V cigarettes were prepared using the outer paper coated with Aromatek-245 solutions (3.7% and 1.85% in ethanol). Cigarettes were made with the coating on both the inside and outside of the wrapper. Some of the samples were given to Analytical Research for development of an analytical procedure for Aromatek.

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Standard Marlboro lap seam adhesives were supplied by National Starch incorporating ethyl vanillin and Aromatek-245 at a 3.5% level. Marlboro and Va. Slims cigarettes were made with these adhesives and submitted for testing. The Marlboro cigarettes were made at a machine speed of 4200 cigarettes/minute (maximum possible) without any lap seam failures.

C. **Plans**: Evaluate current models and new cigarettes made with flavored adhesives provided by National Starch.

IV. KAYMICH APPLICATOR

A. **Objective**: Evaluate products mentholated via the Kaymich application system.

B. **Status**: A study was completed comparing MF Lights 100 cigarettes using foils mentholated via the Kaymich applicator (molten menthol) and the PM mentholator (menthol/ethanol solution). No significant differences were observed in the smoke deliveries or subjective responses between the test and control cigarettes. However, a spotting analysis conducted after 22 days of lab storage indicated 28 spots/2000 control cigarettes and 52 spots/2000 test cigarettes. Provided spotting is not a problem, molten menthol application to foil appears to be a viable approach for mentholating cigarettes.

Another study was initiated comparing cigarettes (filler) mentholated via Kaymich at the maker versus spray-applied and menthol-on-foil controls. Analytical, subjective and cigarette spot testing is being conducted weekly for 30 days.

V. ASH TRAY ODOR

A. **Objective**: Develop products which facilitate the elimination of ash tray odor.

B. **Status**: Spent filters from machine smoked Ambrosia cigarettes (with Aromatek-245) were submitted for testing by the Odor Panel.

C. **Plans**: Design and conduct an experiment to determine the effect of Aromatek-245 (and other flavors) on ash tray odor.

VI. MACHINERY DEVELOPMENT

A. **Objective**: Develop or modify equipment to facilitate the development of new products.

B. **Status**: A PZ application booth was acquired and is being modified to apply liquid additives to CA on the Mark-6/Mini plugmaker.

A CA web/paper plugmaker was placed in the Filter Development Lab and is currently being set-up to run.

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Source: https://www.industrydocuments.ucsf.edu/docs/thjm0000

A new paper slitter was set-up on the laboratory embossing unit and preliminary samples were prepared. Additional modifications are required to bring the unit up to full capability.

C. **Plans**: Complete current equipment modifications.

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Source: https://www.industrydocuments.ucsf.edu/docs/thjm0000